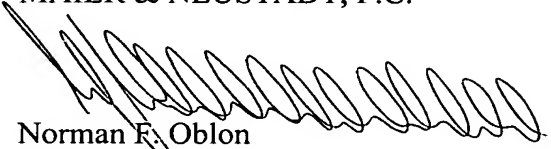


REMARKS

Claims 1-21 are active in the present application. Claims 3-8 and 10-13 and 15-21 have been amended to remove multiple dependencies. No new matter is added. An action on the merits and allowance of claims is solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.


Norman F. Oblon
Attorney of Record
Registration No. 24,618

Stefan U. Koschmieder, Ph.D.
Registration No. 50,238



22850

(703) 413-3000
Fax #: (703) 413-2220
NFO:SUK\la
I:\atty\SUKOS\217638us-pr.wpd

6463

Marked-Up Copy

Serial No:

Amendment Filed on:

1-15-2002

IN THE CLAIMS

Please amend the claims as follows.

--3. (Amended) The process as claimed in [either of the preceding claims] claim 1, wherein R⁶ to R⁹ are selected independently from the group consisting of (C₃-C₈)-alkyl, (C₆-C₁₀)-aryl, O-(C₅-C₈)-alkyl, O-(C₆-C₁₀)-aryl or an aliphatic or aromatic (C₃-C₉)-heterocycle containing from 1 to 4 nitrogen atoms.

4. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein R⁶ and R⁷ and/or R⁸ and R⁹ may be linked by a covalent bond so as to form a cyclic compound having from four to eight atoms.

5. (Amended) The process as claimed in claim 1 [or 2], wherein ligands in which Y¹ and Y² are each a direct phosphorus-carbon bond are used.

6. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein Z comprises from one to four carbon atoms, in particular two carbon atoms.

7. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein Z is a C₁-C₆-alkyl or C₂-C₆-alkenyl group or is part of a C₃-C₈-cycloalkyl, C₅-C₈-cycloalkenyl, C₂-C₉-heterocycloalkyl, C₁-C₉-heterocycloalkenyl, C₆-C₁₄-aryl, phenyl, naphthyl, fluorenyl or C₂-C₁₃-heteroaryl group, where the number of heteroatoms from the

group consisting of N, O, S can be 1-4 and all these groups may be monosubstituted or polysubstituted [as described in claim 1].

8. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein ligands in which a three- to nine-membered ring system can be formed by Z, X¹, X², P¹ and P² together with a coordinated metal are used.

10. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein the starting materials of the formulae (I) and/or (II) used are ones whose substituents R¹ to R⁴ are each, independently of one another, hydrogen, (C₁-C₁₂)-alkyl, (C₂-C₁₂)-alkenyl, (C₂-C₁₂)-alkynyl, (C₆-C₁₀)-aryl, CF₃, CN, COOH, COOM, where M is a cation selected from the group consisting of Li⁺, Na⁺, K⁺, Mg²⁺, Ca²⁺, NH₄⁺, N(C₁-C₁₀-alkyl)₄⁺, N(C₁-C₁₀-alkyl/C₆-C₁₀-aryl)₄⁺, COO-alkyl-(C₁-C₈), CONH₂, CONHalkyl-(C₁-C₈), CONalkyl₂-(C₁-C₈), CO-alkyl-(C₁-C₈), CO-phenyl, COO-phenyl, COO-aryl-(C₆-C₁₀), CO-aryl-(C₆-C₁₀), PO(aryl-C₆-C₁₀)₂, POalkyl₂-(C₁-C₄), PO₃H₂, PO(alkyl-(C₁-C₄))(Oalkyl-(C₁-C₄)), PO(O-alkyl-(C₁-C₆))₂ or Si(alkyl)₃-(C₁-C₈) and/or R³ and R⁴ are selected independently from the group consisting of O-alkyl-(C₁-C₈), OCO-alkyl-(C₁-C₈), O-aryl(C₆-C₁₀), OH, NH₂, NH-alkyl-(C₁-C₈), N-alkyl₂-(C₁-C₈), NHCO-alkyl-(C₁-C₄), NHCOO-alkyl-(C₁-C₄), NHaryl-(C₆-C₁₀), where alkyl is an unbranched or branched aliphatic or cyclic or heterocyclic radical containing from one to four heteroatoms selected from the group consisting of N, O, alkenyl is an olefinic hydrocarbon, alkynyl is an acetylenic hydrocarbon and aryl is an aromatic radical which may also be an aromatic containing 1-4 heteroatoms from the group consisting of N, O and S,

and alkyl, alkenyl and alkynyl and also aryl may bear substituents selected independently from among hydrogen, O-alkyl-(C₁-C₈), OCO-alkyl-(C₁-C₈), O-phenyl, phenyl, aryl-C₆-C₁₀, fluorine, chlorine, bromine, iodine, OH, NO₂, Si-alkyl₃-(C₁-C₈), CF₃, CN, COOH, COOM where M is a monovalent cation selected from the group consisting of Na, K,

Rb, Cs, NH₄, N(C₁-C₁₀-alkyl)₄, N(C₁-C₁₀-alkyl/C₆-C₁₀-aryl)₄, and SO₃H, N-alkyl₂-(C₁-C₈), SO₂-alkyl-(C₁-C₆), SO-alkyl-(C₁-C₆), NHCO-alkyl-(C₁-C₄), COO-alkyl-(C₁-C₈), CONH₂, CO-alkyl-(C₁-C₈), CO-phenyl, COO-phenyl, COO-aryl-(C₆-C₁₀), CO-aryl-(C₆-C₁₀), PO-phenyl₂, POalkyl₂-(C₁-C₄), PO₃H₂, POalkyl-(C₁-C₄)(O-alkyl-(C₁-C₆)), PO(O-alkyl-(C₁-C₆))₂, Si(alkyl)₃(C₁-C₈), where alkyl and aryl are as defined above.

11. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein the starting materials of the formulae (I) and/or (II) used are ones in which R¹ and R² and/or R³ and R⁴ are linked by covalent bonds so as to form a three- to nine-membered ring.

12. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein metal complexes having central atoms selected from the group consisting of Rh, Ru, Ir, Pd, Pt, Ni, in particular ones containing rhodium as central atom, are used as homogeneous metal atom-ligand complex.

13. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein alkyl is an unbranched or branched aliphatic or cyclic hydrocarbon and aryl is an aromatic radical.

15. (Amended) The process as claimed in [any of the preceding claims] claim 1 which is carried out at a temperature of -40-100°C.

16. (Amended) The process as claimed in [any of the preceding claims] claim 1 in which further additives are used.

18. (Amended) The process as claimed in [any of claims 1 to 15] claim 1 carried out using phosphinite-rhodium catalysts without the addition of additives.

19. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein solvents used are alcohols, water, halogenated hydrocarbons, ethers, aromatic hydrocarbons and mixtures thereof.

20. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein the initial hydrogen pressure is from 0.1 to 300 bar.

21. (Amended) The process as claimed in [any of the preceding claims] claim 1, wherein the catalyst system is used in an amount of from 0.001 to 5 mol%, based on the carbonyl component of the formula (I).--